

## A HANDSOME WILLOW OF THE PENOBSCOT VALLEY.

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THE large shrub which in the Penobscot Valley is usually supposed to be *Salix sericea* Marsh. has the young leaves conspicuously reddish-white beneath with long appressed lustrous and somewhat tangled felt-like pubescence; the mature leaves 6–12 cm. long, 2–3.5 cm. broad, velvety beneath with distinct subappressed hairs, and conspicuously serrate-dentate with salient gland-tipped teeth. The semi-ovate very glanduliferous stipules are small (4–5 mm. long) and persistent; and the slender pistillate aments are, in anthesis 2–3.5 cm. long, in fruit 4–5.5 cm. long, and borne on distinctly elongating lateral leafy branchlets.

Recently one of my students, Mr. William G. Vinal, has called my attention to certain peculiarities which distinguish the Penobscot Valley shrub from the more southern *Salix sericea*, and an examination of the material shows that in very many characteristics the two shrubs are distinct. *S. sericea*, which occurs from southern Maine to North Carolina and west to the Great Lakes and the Mississippi Basin, has the leaves silky beneath with minute close hairs, in maturity 4–10 cm. long, 1–2.5 cm. broad, closely glandular-serrulate with fine teeth. The stipules, which are rarely developed, are lanceolate, 2–3 mm. long, and caducous, usually quite absent from the mature branches; and the pistillate aments, borne on very short slightly bracteate peduncles or subsessile upon the old wood, rarely become in fruit more than 2–3 cm. long.

Besides these superficial characters which separate the two shrubs, an examination of the pistillate aments shows other characters which indicate that the shrub of the Penobscot Valley is specifically distinct from *Salix sericea*. The latter species has the style minute or quite wanting, the sericeous oblong round-tipped capsule raised on a pedicel which about equals the short-hairy scale and about twice exceeds the gland. In the shrub of central Maine the style is definite; and the looser-hairy conical capsule, though pedicelled, is nearly equalled by the very long hairs of the scale; and the gland is very minute.

The shrub of central Maine is in the shape of its capsule and its distinct style as closely related to the arctic-alpine *Salix argyrocarpa*



Anders. as to *S. sericea*. That species, however, has a finer pubescence, paler scales, smaller aments and capsules, and small entire revolute leaves without stipules.

Differing, then, in essentially all characters from the more southern *Salix sericea* with which it has been confused and the arctic-alpine *S. argyrocarpa* to which it is as closely related, the shrub of the Penobscot Valley seems worthy specific separation from those species, and it is here proposed as

***Salix coactilis***, sp. n. Frutex altus, ramis crassis subquadratis fusco-viridibus vel atris junioribus griseis puberulis; foliis oblongis vel lanceolato-ovatis longe acuminatis junioribus subtus dense pubescentibus, pilis rufo-albidis fulgidis coactilibus, demum subtus velutinis supra viridibus 6–12 cm. longis 2–3.5 cm. latis remote et argute glanduloso-dentatis, petiolis gracilibus 1–1.5 cm. longis griseo-velutinis; stipulis semi-ovatis glanduloso-serratis 4–5 mm. longis persistentibus; amentis foliato-pedunculatis cylindricis 2–3.5 cm. longis, fructiferis 4–5.5 cm. longis 7 mm. crassis; squamis oblongis vel obovatis apice obtusis vel rotundatis fuscis vel nigrescentibus longe pilosis, pilis laminam aequantibus; capsulis conico-subulatis 5 mm. longis albidovillosis pedicellatis, pedicello nectarium quintuplo superante; stylo distincto 0.5 mm. longo, stigmatibus brevibus bilobatis.

Large shrub with coarse stiff branches; branchlets somewhat quadrangular, dark green or blackish, the youngest gray and puberulent: leaves oblong or lance-ovate long-acuminate, slender-petioled, at first reddish-white beneath with lustrous felt-like pubescence, afterward velutinous with distinct hairs, in maturity 6–12 cm. long, 2–3.5 cm. broad, remotely and coarsely glandular-dentate; stipules semi-ovate, gland-toothed, 4–5 mm. long, persistent: aments on short leafy peduncles, expanding with the leaves, in anthesis 2–3.5 cm. long, in fruit 4–5.5 cm. long, 7 mm. thick: scales oblong or obovate, blunt or rounded at tip, dark brown to blackish, very hairy; the hairs usually as long as the blade: capsule conic-subulate, 5 mm. long, white-villous, the pedicel 1–1.5 mm. long, about five times as long as the gland: style definite, 0.5 mm. long; stigmas short, 2-lobed.—MAINE, banks of Penobscot River, Orono, in anthesis May 29 and 30, 1890 (*M. L. Fernald*); Bangor, May 16 and June 7, 1904 (*O. W. Knight*, nos. 30 [TYPE] and 31).

GRAY HERBARIUM.

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NEPHRODIUM FILIX-MAS IN VERMONT.—Miss Nancy Darling of Woodstock, has had the good fortune to find in the neighboring town